2007 Buck Springs
Allotment Management Plan (AMP)

Mogollon Rim Ranger District

Coconino National Forest

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Agreed to/Reviewed by: Ryley Knight Date 7/16/2007
Permittee

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Record of Decision Summary

This Allotment Management Plan follows the "Final Environmental Impact Statement for Buck Springs Range Analysis" (FEIS) and "Record of Decision for Buck Springs Range Analysis Final Environmental Impact Statement" (ROD) signed on 8/18/2003. Information on the purpose and need of the project, alternatives considered, and effects of the alternatives can be found in the FEIS or ROD.

Management Strategy

Based on the decision made in 2003, the allotment boundaries for this allotment have been changed. Several of the pastures in the southern portion of the allotment have been reconfigured or closed. There are also several new structures needed to protect meadows and riparian areas for recovering watershed function and the Little Colorado spinedace. Refer to the Buck Springs Allotment Map (dated June 6, 2007) for the new boundaries. See the FEIS or ROD for further discussion of the rationale for these changes.

The allotment will use a rest-rotation strategy, with pastures grazed one year in two. The allotment will be managed with an east management unit called the Buck Springs Unit and a west management unit called the Battleground Unit. To implement the rest-rotation management strategy, livestock use will alternate annually between the Buck springs Unit and the Battleground Unit. The Buck Springs Unit contains the following pastures: North, Dines, North Knolls, Moonshine, North McClintock and the Limestone/Headquarters area pastures. The Battleground Unit contains the following pastures: Jumbo, Double North, McCarty, North Battleground, South Battleground, Burn, North Pinchot, and South Pinchot.

Livestock Grazing

1. Permitted numbers for the allotment are 393 cow/calf pairs (equivalent to 561 yearlings) and 8 horses while cattle are on the Battleground Unit, and 250 cow/calf pairs (equivalent to 357 yearlings) and 8 horses while cattle are in the Buck Springs Unit. Adjustments in annual numbers will be specified in each year's AOI.

2. The allotment will be grazed using a rest-rotation system, with approximately 1/2 of the pastures rested on a yearly basis. Season of use is from May 15 to October 15 allowing for plant maintenance needs. When conditions are suitable, allow entry before May 15th so that livestock can utilize native grasses in the northern pastures, particularly the fescue, while the plants are still green, growing, and palatable. The pastures will not be grazed until range readiness allows.
    a. Year 1 - Buck Springs Unit: North, Dines, North Knolls, Moonshine, North McClintock and the Limestone/Headquarters area pastures.
    b. Year 2 – Battleground Unit: Jumbo, Double North, McCarty, North Battleground, South Battleground, Burn, North Pinchot, and South Pinchot pastures.

3. Fencing, livestock trailing, control of waters, and cattleguards will be used to manage the distribution of livestock grazing and utilization of upland native species, to avoid meadows and riparian areas, and to increase livestock control in sensitive areas.

4. Pastures with critical fences for Little Colorado spinedace protection will not be grazed prior to construction or annual maintenance. Pastures will be added into the grazing land base as fences are constructed. The permittee will be required to maintain these critical fences both before the grazing season and during the season.

Forage Utilization

Manage livestock and wildlife to achieve maximum site-specific utilization levels of 35% in pastures with access to secondary drainages (Double North, McCarty, North Battleground, South Battleground, Burn, North Pinchot, and South Pinchot, North, Dines, North Knolls, Moonshine, North McClintock and the Limestone/Headquarters area pastures) and in Mexican spotted owl areas. A maximum utilization level of 45% is allowed in upland pastures with no riparian concerns (Jumbo pasture) and outside of Mexican spotted owl areas.

Structural Range Improvements

Construct the following Structural Range Improvements (also shown in Appendix A). All proposed fences will be constructed with three strands of barbed wire and a smooth bottom wire unless otherwise noted.

1. Construct gap fencing across Yeager Canyon (North Pasture) at suitable locations up and downstream of the 96 Road crossing, with a cattleguard and wing fences, to split the pasture into east and west pastures, making 2 pastures from one. These gap fences would tie into bluffs and would exclude livestock from access to Yeager Canyon from FR96 and would be considered critical. Drift fences would also be constructed at points where livestock may access the canyon. (FS/Permittee partner)

2. Construct approximately 0.3 miles of drift fence along Yeager Canyon in Forest Service Pasture. (FS/Permittee partner)

3. Eliminate access to Leonard Canyon in the Dines Pasture by constructing approximately 1.6 miles of fence. (Permittee) Additionally, a small section of a level 3 road would be closed where the new fence crosses the road. A total of 0.2 miles would be closed on Forest Road 9713G.

4. Create a new pasture (North Knolls Pasture) from the portion of Knolls Pasture north of Buck Springs by constructing approximately 0.8 mile of fence along Leonard Canyon and approximately 1.9 miles of fence along the north side of Buck Springs Canyon. (Permittee)

5. Complete approximately 0.1 miles of fence at Turkey Pen to control livestock movement between North and South Battleground Pastures. (FS/Permittee partner)

6. Construct approximately 3.2 miles of fence along south side of East Clear Creek in McCarty Pasture to control livestock access; tie the fence into Jones Crossing Fence. (Permittee) Reconstruct the north fence along the boundary of McCarty Pasture that serves as a lane to access the northern portion of North Battleground Pasture north of the Reservoir. (FS/Permittee partner)

7. Construct approximately 0.1 miles of drift fence to funnel livestock away from General Springs. (FS/Permittee partner)

8. Construct a temporary electric fence at General Springs Cabin to keep livestock away from sensitive areas when livestock are in the South Battleground Pasture. Permittee must construct this fence before using the pasture. (Permittee)

9. Construct approximately 0.5 miles of division fence and install a cattleguard on Forest Road 139 in the South Pinchot Pasture from East Bear Canyon to the riparian pasture at Merritt to allow use of the northern portion of the pasture. (Permittee)

10. Establish a livestock exclosure around Fred Haught Springs (approximately 7 acres in size) to promote formation of meadow sponge effect. (FS) Construct pipe and sucker rod exclosures around Pinchot and Aspen Springs. (FS) Use exclosures to monitor forage use by livestock.

11. Build approximately 0.8 miles of fence from Aspen Pasture to Bear Canyon to create a small exclosure in Houston Draw north of the Aspen Horse Pasture (FS/P partner). Construct a livestock exclosure around upper Houston Draw south of the Aspen Horse Pasture by constructing approximately 1.4 miles of fence and installing a cattleguard in Forest Road 139A (Permittee). Take the Aspen Horse Pasture out of the rotation from cattle grazing, and construct approximately 0.8 miles of fence (FS) to create a horse pasture in very south of North Pinchot pasture. The corrals at Aspen Springs can be used for horses only.

12. Establish a 90 acre livestock exclosure adjacent to the McClintock Springs elk exclosure. Construct a drift fence at side draw to Dane Canyon in North McClintock Pasture. Trail livestock into the North McClintock pasture on the U-Bar Trail and use temporary fences and riders to ensure that livestock do not wander up or down-canyon. As an alternative, livestock may be hauled in and out of the pasture. (Permittee)

13. Up to two corrals, three waterlots, and two drylots may be constructed or reconstructed to facilitate loading, unloading, and gathering of livestock. (FS/Permittee partner)

14. The Forest Service, in partnership with the Arizona Game and Fish Department, will maintain existing elk exclosures (Buck Springs, Houston Draw, Merritt Draw, General Springs, McClintock Springs, and Kinder Draw).

Additional Management Items

Annual Operating Instructions: Annual operating instructions make adjustments to cattle numbers, and time and duration of pasture use based on current climatic and range conditions. Making these plans each year and adjusting throughout the season as conditions change provides the needed flexibility for livestock operations in the Southwest.

Roads and Cattle Guards: There is a need to keep forest users from leaving gates open. Where roads are maintained as open, cattle guards will be put in place. Where roads are identified for closure, in past and future road decisions, no cattle guard is necessary.

Cattle Guard Maintenance: Cattle guard maintenance is shared between the Forest Service and the permittee for level 3 roads (main surfaced roads). Cattle guard maintenance on level 2 roads (secondary smaller roads) is the responsibility of the permittee.

Implementation of Structural Improvements: There is a need for cultural, wildlife and recreation coordination when implementing the grazing system. Structural improvements such as fencing, stock tanks and cattle guards will be used to implement the grazing plan. During the life of the permit, there may be additional or fewer improvements needed based on adapting to changes and meeting the goals of the new system. The following parameters need to be followed when implementing structural improvements.

- **Cultural Resource Coordination:** A programmatic cultural report has been completed and approved by the State Historic Preservation Office (SHPO). Using the parameters described in the programmatic report, conduct survey and obtain clearance prior to any ground disturbing activities related to structural improvements.

- **Fencing:** All new fencing will contain a smooth bottom wire and appropriate bottom wire height for wildlife. Conduct cultural resources and threatened, endangered and sensitive species coordination as described above. Where possible, locate fences within tree lines to limit impact to visual quality. Elk jumps may be constructed along new fences and along existing fences as appropriate.

Other Management Items: Salting occurs throughout the allotment, but is not used in northern goshawk PFAs, meadows, burn areas or locations closer than 1/4 mile to water. Grazing systems are alternately rested and grazed in a planned sequence. The permittee will rotate livestock in a planned grazing system that alternates rest and graze period throughout a given year and from year to year.

Monitoring

Rangeland Management and Understory Vegetation

Annual Monitoring

1. Compliance Monitoring: Throughout each grazing season, compliance monitoring may be done by Forest Service personnel to determine accomplishment of the terms and conditions of the term grazing permit, Allotment Management Plan, and Annual Operating Instructions. This specifically includes monitoring of East Clear Creek, Leonard Canyon, and livestock exclosures to ensure unauthorized use does not occur.

2. Allotment Inspections: Allotment inspections are a written summary completed each year by Forest Service personnel to document compliance monitoring and to provide an overall history of that year's grazing. This monitoring is completed with the permittee. This document may include weather history, the year's success, problems, improvement suggestions for the future, and a monitoring summary.

3. Range Readiness: Each spring before cattle are turned out on the allotment, range readiness will be assessed by Forest Service personnel to determine if vegetative conditions are ready for cattle grazing. The range is generally ready for grazing when cool season grasses are leafed out, forbs are in bloom, and brush and aspen are leafed out. These characteristics indicate the growing season has progressed far enough for plants to replenish root reserves so that grazing will not seriously impact the forage plants.

4. Forage Utilization: Utilization is measured at the end of the growing season when the total annual production can be accounted for and the effects of grazing in the whole management unit can be assessed. This assessment, along with climate and condition/trend data, is used to set stocking levels and pasture rotation for future years. Utilization is not intended to be the only way to determine when livestock are moved from one pasture to another or as a nonflexible limit of use within any given year.

   For this allotment, pasture moves would be determined by a seasonal utilization, which is the use of any given pasture measured before the end of the grazing season. This guideline takes into account any additional growth which might occur that year. Seasonal utilization data can be used as a guideline for moving livestock within the allotment and considers season of use, elk use, weather conditions, availability of forage, and water in pastures. If elk use exceeds this guideline in a pasture, cattle would skip this pasture and move to the next pasture in the rotation.

   Utilization monitoring is an estimate of the available forage by weight consumed or trampled through grazing and is expressed as a percent of the current year's biomass removed. Utilization monitoring is designed to assess forage utilization levels by cattle and elk during the year and from year to year. Seasonal utilization monitoring will be conducted by the permittee and spot checked by Forest Service personnel throughout the year in every grazed pasture. This monitoring will calculate an overall

seasonal utilization and utilization values for a pasture 1) before cattle go into a pasture, 2) within five days after cattle leave a pasture, and 3) at the end of the growing season in the fall.

Identify key ungulate utilization monitoring areas. For the North, Moonshine, Horse, and North McClintock pastures, identification of these key areas will be done cooperatively by the Forest Service, Fish and Wildlife Service, and the permittee. These key areas will normally be ¼ to 1 mile from water, located on productive soils on level to intermediate slopes, and be readily accessible for grazing. The size of the key forage monitoring areas could be 20 to 500 acres. In some situations such as high mountain meadows with perennial streams, key areas may be closer the ¼ mile from water and less than 20 acres. Within key forage monitoring areas, select appropriate key species to monitor average allowable use.

5. As required in the Biological Opinion for this allotment, issued April 30, 2003, the Forest Service will inspect all fences one month or less prior to livestock being put in any pasture and shall ensure that all maintenance is completed prior to livestock moving into the pasture and while livestock are present.

Long-term Monitoring

1. Forage Production: Forage production surveys for the allotment will be done approximately every 10 years. Methods used for these surveys will be done by the best available methods at that time. These values will be used as tool to manage this allotment, but will not be the sole measure to set carrying capacity.

2. Condition and Trend: Watershed and vegetative condition and trend monitoring will help determine the effectiveness of the Allotment Management Plan and should be collected once every 10 years. In the past, Parker 3-step and paced transects have been used to determine condition and trend. Other monitoring techniques include canopy cover and frequency ground cover plots.

   Parker 3-step and paced transect monitoring points were established throughout the allotment in the 1950-60's. These transects are one of the best historic records of range condition and trend. The photo points and vegetative ground cover data show how the site has changed over time. The new plots and techniques will be placed over the Parker 3-step transects in most locations to take over this historic data. The original photo points will be retaken.

   Ocular plant canopy cover 0.10 acre plots will be used to compare existing conditions with potential and desired vegetative community conditions. Over time, these plots will show us how canopy cover changes. Canopy cover will provide an indication of how plants are growing, assuming that if they are getting bigger and occupying more space, then they are doing well and that can be a relative gauge of vigor.

   Frequency and ground cover data will be collected using the protocols established in, "Some Methods for Monitoring Rangelands and Other Natural Area Vegetation," Edited by G.B. Ruyle, Extension Report 9043, 1997. These plots will monitor trends in plant species abundance, plant species distribution and ground cover. All this

information will be statistically valid. This will provide information on plant composition and additional information on regeneration. These transects will be read at least every 10 years by Forest Service personnel. These plots will be used to help determine the effectiveness of the Allotment Management Plan.

Wildlife

1. Southwestern Willow Flycatcher: Monitor potential habitat to determine if habitat reaches suitability. When suitability is reached, conduct flycatcher surveys to determine occupancy. If flycatchers are found within five miles of the allotment, follow protocols to trap brown-headed cowbirds and exclude grazing within two or five miles as required.

2. Bald Eagle: Establish a 300 foot radius around identified bald eagle roosts where mineral and salt supplementation and gathering of livestock will be excluded (CFLMP).

3. Mexican Spotted Owl and Northern Goshawk:
   a. Continue to monitor "key areas" in restricted habitat and meadows in owl habitat and in goshawk PFAs to ensure that specified utilization standards are followed (CFLMP). Monitor utilization levels in those key areas after livestock leave in the fall.

Aquatic Resources

1. Monitoring of habitat conditions and fish populations will continue through the efforts of Forest Service personnel and the Arizona Game and Fish Department. The monitoring of aquatic insect (macroinvertebrate) abundance and species diversity will also occur on sites selected within the watershed.

2. In conformance with Regional Direction (June 2, 1997), inventories of spinedace habitat will continue as a part of the overall management for the species.

3. Regional Direction (Regional Forester, June 2, 1997) also specifies the establishment of permanent monitoring sites for the collection of long-term datasets. These datasets will provide trend information on fish population and community structure viability and habitat parameters for the spinedace and other native fish. This measure has been a "term and condition" for the implementation of a "reasonable and prudent measure" for ongoing grazing of the Buck Springs Allotment (USDI 1999, p.72).

4. The Forest Service will monitor livestock when they occupy the North Pasture to ensure that cattle are not entering habitat occupied by Little Colorado spinedace in Yeager Canyon; the North McClintock pasture to ensure that cattle are not entering Dane Canyon; and any other pasture that may be found to contain occupied habitat.

Soil and Water

1. Implementation of the Best Management Practices will be accomplished through construction activities completed by the permittee and the Forest Service.

2. Monitoring of the soil and water BMP's will be done through contract administration and the AOI (the AOI will specify what pastures can be used based on the structures completed within the pastures).

3. Additional required monitoring of riparian areas will be accomplished by utilization measurements within riparian area key areas as designated in MSO monitoring.

Cultural Resources

The project administrator must ensure that all ground-disturbing activities receive archaeological surveys and clearances prior to implementation. Avoidance of archaeological resources is required and will be monitored during project implementation.

MITIGATION MEASURES

The following mitigation measures are required for this Allotment Management Plan.

General

1. Remove unnecessary fences before they deteriorate to the point where they become hazards to people or wildlife.

2. Construct all new fences along potentially eligible Wild and Scenic River sections of East Clear Creek, Barbershop Canyon, and Leonard Canyon out of sight of the drainage bottoms, where feasible. No actions would be taken that would degrade the outstanding remarkable characteristics of these areas.

Wildlife

1. Construct new fences, waterlots, drylots, corrals, cattleguards, or other improvements; and implement road closures, within Mexican Spotted Owl PACs, in goshawk nest stands, and within ¼ mile of peregrine eyries, outside of the breeding season (construction can occur between September 1 – February 29) or after non-nesting has been determined.

2. Do not use salt or minerals in Mexican spotted owl PACS, goshawk nest stands, or within ½ mile of peregrine eyries.

3. Do not gather livestock, or brand within Mexican spotted owl PACS, goshawk nest stands, or within ½ mile of peregrine eyries.

4. If a bald eagle roost is located, do not construct structures within ¼ mile during the times when eagles are present on the allotment (November – March).

5. Survey earthen tanks for Chiracahua leopard frogs prior to maintenance activities. Maintain stock ponds during the fall or winter, if possible, to avoid impacts to adult frogs tadpoles, and eggs. Maintain when dry or nearly dry.

6. New waterlots will be at least five acres in size. Wire gates open in waterlots and drylots when not in use.

7. Maintain existing fences to meet wildlife specifications.

Noxious weeds

1. Evaluate improvement construction and maintenance prior to implementation to determine risk for introducing or expanding noxious weed populations and assign measures to reduce this risk.

2. Clean equipment (dozers, tractors, chainsaws) before and after use on the allotment, when known to have been in areas infested with noxious weeds. Clean equipment before moving to a new area within the allotment when known to have been in infested areas.

3. Avoid areas infested with noxious weeds, especially when using equipment.

Cultural Resources

1. In order to insure the *status quo*, management practices that tend to concentrate livestock (and most likely wild ungulates) such as placement of salt, haying, construction of waters, etc., will be located away from cultural resources. This measure will be included in each year's Annual Operating Instructions and would be a discussion at the annual meeting with the permittee.

2. Ground disturbing activities such as construction of improvements (tanks, new cattleguards, harrowing and seeding, etc.) and watershed maintenance activities will require separate archaeological surveys and clearances prior to implementation. These activities will be managed to avoid sites to ensure there is no effect.

3. Maintenance, reconstruction, or replacement of existing facilities, such as existing cattleguards, gates, fences, and culverts, are undertakings that do not have the potential to cause effects on historic properties as long as the work does not involve additional ground disturbance. The Forest, Zone, or District Archaeologist will be notified of these activities prior to implementation to confirm that there is no potential to cause effects on historic properties. Any new fence construction, fence relocation, or clearing for fence realignment, whether by hand or mechanical means, requires separate evaluation and documentation from the Forest Archaeologist to determine if there is potential for effects on historic properties or whether separate clearances or surveys are needed.

Aquatic Resources

1. Insure that any and all newly proposed and existing critical fences required for the protection of spinedace fencing are constructed/maintained prior to pasture use by livestock (identified in Appendix A).

2. Prior to use of the Miller / ECC confluence crossing, a fisheries biologist will survey for the presence of any sensitive fish species, and evaluate fish habitat conditions. If spinedace, or any other sensitive fish species are located at or within the vicinity of the crossing (1/4 mile up or downstream of the confluence \ crossing), the crossing would not be used. In the absence of sensitive fish species, the crossing could be used with the following stipulations:
   Protect the drainages from trampling by erecting a temporary fence across the mouth of Miller Canyon, and across ECC immediately upstream from the

confluence with Miller Canyon. These fences and the use of riders would help in controlling livestock through the crossing, and direct their travel up and out of the drainage.

3. Prior to use of other stream course crossings, a fisheries biologist will survey for the presence of any sensitive fish species, and evaluate fish habitat conditions. If spinedace or any other sensitive fish species are located at or within the vicinity of the crossing, measures must be taken to protect sensitive fish and fish habitat. Use the following protective measures regardless of whether fish are present or not:
   a. Protect the drainages from trampling by erecting temporary fences to help in controlling livestock through the crossing, and direct their travel up and out of the drainage.
   b. Use riders to ensure that livestock would not be allowed to move up or down drainage, or be allowed to mill around within the vicinity of the drainage crossing.

Soil and Water

Soil and water concerns are mitigated through the application of site-specific Best Management Practices.

1. Eliminate access to Leonard Canyon in the Dines Pasture with 1.6 miles of fence.

2. Construct a 3.2 mi. fence along south side of East Clear Creek in McCarty Pasture to control livestock access; tie the fence into Jones Crossing Fence. Reconstruct the north fence along the boundary of McCarty Pasture that serves as a lane to access the northern portion of North Battleground Pasture north of the Reservoir.

3. Construct a drift fence to funnel livestock away from General Springs (0.4 mile). Construct a temporary electric fence at General Springs Cabin to keep livestock away from sensitive areas, when livestock are in the South Battleground Pasture.

4. Construct a division fence in the South Pinchot Pasture from East Bear Canyon to the riparian pasture at Merritt, to allow use of the northern portion of the pasture. The portion south of this fence, and between Bear Canyon and East Bear Canyon would not be used by livestock.

5. Establish livestock exclosures to promote formation of meadow sponge effect around Fred Haught Springs (7 ac). Use exclosures to monitor forage use by livestock. Construct sucker road exclosures around Pinchot and Aspen Springs. Build 0.8 miles of fence from aspen Pasture to Bear Canyon to create a small exclosure in Houston Draw north of the Aspen Horse Pasture. Construct a livestock exclosure around upper Houston Draw south of the Aspen Horse Pasture (2.4 miles).

6. BMP #1 (SW3) - Monitor ground conditions before and during construction activities to avoid wet ground conditions that can adversely affect soil condition and water quality.

7. BMP #7 (SW10) - Monitor stock tanks in identified wetlands for maintenance activities.